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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,108	03/23/2004	Gin-Der Wu	2019-0242PUS1	1882
2292 7590 09/25/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER SUTHERS, DOUGLAS JOHN	
			ART UNIT 2615	PAPER NUMBER
			NOTIFICATION DATE 09/25/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/806,108

Applicant(s)

WU, GIN-DER

Examiner

Douglas Suthers

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2615.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
 3. Page 6 refers to second "adder 312" which is not found in figure 3.
 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

6. The disclosure is objected to because of the following informalities: The descriptions of the functions of parts 201 and 213-215 do not match the specification, specifically page 6 lines 4-11, and page 8 lines 12-17.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

9. The descriptions of the functions of parts 201 and 213-215 do not match, specifically page 6 lines 4-11, and page 8 lines 12-17. The examiner believes that the systems of figures 2 and 3 would not give the intended result. Perhaps subtractor 214 should be an adder, as found in the conventional art.

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10. Claims 3 and 4 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The gain and processing method is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). As above the drawings and specification do not appear to support each other.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. Claim 6 recites the limitation "the left output port". There is insufficient antecedent basis for this limitation in the claim.

14. Claim 6 recites the limitation "the right output port". There is insufficient antecedent basis for this limitation in the claim.

15. Claim 6 recites the limitation "the fourth subtractor". There is insufficient antecedent basis for this limitation in the claim.

16. Claim 6 recites the limitation "the fifth subtractor". There is insufficient antecedent basis for this limitation in the claim.

17. Claim 5 recites the limitation "a third gain unit". There are no prior "gain units" mentioned explicitly in the claims. It is assumed that the first and second "gain and

high-pass processing” units should read as “first gain unit and first high-pass processing unit” and as “second gain unit and second high-pass processing unit”.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jyosako (US 5657391).

20. Regarding claim 1, Jyosako discloses a method for processing audio signals, and processing left and right channel audio signals, comprising the steps of:

processing a left channel input signal by a gain unit (14L) and then dividing the left channel input signal into a first left channel signal (to 17L) and a second left channel signal (to 15L);

processing a right channel input signal by a gain unit (14R) and then dividing the right channel input signal into a first right channel signal (to 17R) and a second right channel signal (to 15R);

processing the second left channel signal by a low-pass filter processing unit (16L1) and a delaying processing unit (16L5), and subtracting (17R) a processed signal

from the first right channel input signal to produce a first right channel output signal (RL1); and

processing the second right channel signal by a low-pass filter processing unit (16R) and a delaying processing unit (16R), and subtracting a processed signal from the first left channel input signal to produce a first left channel output signal (LR1).

Although Jyosako does not expressly disclose the use of high-pass filtering the left and right input channels, the examiner takes official notice that such was notoriously well known in the art. The motivation to do so would have been to protect the circuitry from DC currents while extracting useful AC audio information. Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to process both the left and right channels by a high-pass filter.

21. Regarding claim 4, Jyosako discloses an apparatus for processing audio signals, and processing left and right channel audio signals, comprising:

a first signal (L1) and gain unit (14L);

a first low-pass filter processing and delay processing unit (figure 1, 16L1 and 16L5) connected with the first signal;

a second signal (R1) and gain unit (14R);

a second low-pass filter processing and delay processing unit connected with the second signal (16R as above);

a first subtracter connected to the output of the first signal as well as the second low-pass filter processing and delay processing unit (17L); and

a second subtracter connected to the output of the second signal as well as the first low-pass filter processing and delay processing unit (17R).

Although Jyosako does not expressly disclose the use of high-pass filtering the left and right input channels, the examiner takes official notice that such was notoriously well known in the art. The motivation to do so would have been to protect the circuitry from DC currents while extracting useful AC audio information. Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to process both the first and second signals by a high-pass filter processing unit.

22. Regarding claim 5, Jyosako discloses further comprising:

a third subtracter (12L) connected to the first subtracter and the second subtracter;

a fourth subtracter (23L) connected to the first subtracter;

a fifth subtracter connected to the second subtracter (23R); and

a third gain unit (13R) connected to the third subtracter, the fourth subtracter, and the fifth subtracter.

Conclusion


23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas Suthers whose telephone number is (571)272-0563. The examiner can normally be reached on 8am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

djs 


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